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Osprey
Pandion haliaetus

Range:
Breeds along sea coasts, rivers and lakes of coastal North America. Winters in the West Indies and in Central and South America.

Washington Distribution:
A summer resident along waterways east and west of the Cascade Mountains. Ospreys are found in western Washington from Bellingham to the Columbia River, and in forested portions of eastern Washington.

Habitat Requirements:
Ospreys feed almost exclusively on live fish captured at or near the water's surface. Although nests are generally built near productive bodies of water, estimates of osprey hunting ranges may extend to distances of 10 to 15 km (16-24mi.) from the nest (Henny 1986, Poole 1987, Sidle and Suring 1986). Ospreys usually construct large stick nests in live trees or dead snags with flat, broken tops. These trees are typically as tall or taller than surrounding structures. Sites that offer accessory perches within view of the nest are preferred (Zarn 1974).

This species exhibits strong nest-site fidelity; breeding pairs usually return to the same site year after year to breed (Vana-Miller 1987). Nesting pairs defend the area around their nest and raise one brood per year (Sidle and Suring 1986, Vana-Miller 1986, Poole 1987). Males use the same perch site located within view of the nest (Hickman, pers. comm.).

Individual osprey pairs apparently vary in their ability to tolerate human disturbance (Van Daele and Van Daele 1982). Several studies (in Vana-Miller 1987) indicate that tolerance to human activities depends upon the timing and frequency of the activities and on the degree of habituation that individual pairs develop to them. Ospreys initiating nesting in or near an area frequented by humans may be more tolerant of subsequent human activities than those unaccustomed to humans (Swenson 1979, Van Daele and Van Daele 1982). Human activities that are initiated during incubation and early nesting are probably most disturbing to ospreys. Disturbance during this critical period (April 1-June 30) can cause adults to leave the nest frequently or for extended periods of time, which can be fatal to embryos and nestlings (Van Daele and Van Daele 1982, Levenson and Koplin 1984).

Limiting Factors:
Availability of snags, suitable live trees, or other suitable nest structures near large bodies of water that produce adequate fish supplies.

Management Recommendations:
Land managers should observe the following guidelines around osprey nests:
1) Restrict all human activities within 201m (660') of any active osprey nest, from April 1 to October 1; 2) Do not cut trees within a 61m (200') radius of each individual nest. This radius can be reduced to 40m (130') when topography dictates; 2) Beyond the 61m "no cut" zone, retain 3-5 live or dead dominant trees currently suitable for nesting or roosting, and some healthy young trees suitable for future roosting or nesting within a 201m radius of the nest tree (Zarn 1974, Westall 1986). At least one snag or perch site for each pair member is recommended (Hickman, pers. comm.); 3) Where vandalism is unlikely, mark nest trees with metal signs to prevent destruction by uninformed individuals (Zarn 1974, Westall 1986).

When osprey nests are located along a shoreline, the following additional guidelines should be observed:
1) Retain a 61m buffer around water bodies where ospreys nest in which timber and snags are not cut (Zarn 1974, Westall 1986); 2) Beyond the 61m "no cut" zone, maintain at least two dominant live trees and two desirable snags per acre within an additional, "restricted cutting" zone of 335m (1,100') (Zarn 1974, Westall 1986); 3) Preserve all broken-top snags and live trees suitable for osprey nesting for a distance of 3.2km (2 mi.) beyond the "restricted cutting" zone.

Ospreys which are unaccustomed to human activities should be protected from disturbance. Roads should be closed between April 1 and September 15 if they are located within 201m of a sensitive pair. In remote areas, campsites should not be located within 1km (0.7 mi.) of occupied nests, and hiking trails should not come within 91m (300') of the nest tree.

Some chemicals applied to water systems could contaminate or reduce the amount of prey available to ospreys. Pesticides, especially organochlorines, should not be used in any watershed used by ospreys. Fish control projects, including rotonone applications, should not be undertaken in waters where the birds hunt unless temporary alternative food sources are available.

Artificial platforms may be useful if mitigation for loss of a naturally occurring nest site is required.

References:
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Key Points:

Habitat Requirements:

- Feed exclusively on fish.
- Construct large stick nests in the largest snags or live trees with flat, broken tops, usually located near water.
- Individual pairs show variation in their ability to tolerate human disturbance.

Management Recommendations:

- Restrict all human activities within 201m of any active osprey nest between April 1 and October 1.
- Establish a "no cut" zone within 61m of each nest.
- Retain 3-5 live or dead dominant trees and young recruitment trees with 201m of the nest tree.
- Do not cut trees within 61m around bodies of water associated within osprey nests.
- Maintain two dominant live trees and two snags per acre within 335m of the "no cut" zone around bodies of water associated with osprey nests.
- Preserve snags and live trees suitable for nesting for 3.2km beyond the "restricted cutting" zone around water bodies associated with osprey nests.
- Close roads between April 1 and October 1 if birds are unused to disturbance.
- Do not apply chemicals to any watershed used by ospreys.